

# Nighttime Construction Noise

Urban and Rural highway projects

# Type of construction projects

- Mega projects

Sound Transit, Alaskan viaduct

- Highway projects

Paving, traffic signal installation

- Urban construction

Building demo/construction, city's arterial/Street improvements.

# Nighttime construction work

- WSDOT must obtain variance from jurisdiction to work after 10:00 PM to 7:00 AM
- WSDOT incorporates noise mitigation conditions on contract plans
- WSDOT monitors compliance during construction.
- WSDOT responds to complaints.



# Selection of mitigation measurements vs. type of highway project

- Highway preservation projects - Paving -
- Mobility projects - HOV widening -
- Traffic/Electrical/Retrofit projects
- Structural projects
- Maintenance projects

# Construction nighttime noise variance

## Condition types

- Minimum WSDOT standard conditions
- Special conditions required by specific jurisdiction
- Conditions that depend on the location, duration and type of project.
- Conditions identified during a public process.

# Minimum WSDOT standard conditions

- Back up alarms
- Temporary Shields
- No tail gate banging allowed
- No parked or idling vehicles near residences
- Public notification by contractor of night time construction



# Special conditions required by specific jurisdiction

- Provide 24hr emergency phone line
- Noise training to workers
- Construction site monitoring
- No work allowed within the same neighborhood for more than 2 consecutive weeks
- Publish notices
- Provide VMS signs



# Conditions that depend on the location, duration and type of project

## ■ On Site control

- Work hours limitation
- Scheduling
- Temporary barriers
- Equipment location and Traffic control site
- Equipment & material handling
- Back up alarms

## ■ Off Site Strategies

- Ear plugs
- Public meetings/neighborhood group meetings.
- Notices :flyers, Newspapers, signs
- Window insulations Styrofoam.
- Out of the box

# Conditions identified during a public process

- Relocation of resident may be justified if 2 consecutive complaints are received.
- Special notification for sensitive residences such as nursing homes and hospitals



## Constrains for implementation of construction mitigation measurements

- Project construction budget.
- Type of construction operations
- Construction seasons : Summer vs. Winter
- Limitation on schedule: lane closures  
environmental permits
- Topographical features
- Safety issues

# Mitigation strategies

## Approach

- Present a set of mitigation conditions to the jurisdiction that the agency is able to bid within budget
- Present effective tools to minimize nighttime construction noise nuisances.
- Coordinate efforts between jurisdiction and contracting agency to update mitigation measures in case of complaints.

# Agency Coordination

## Successes

- Public information
- Develop trust with jurisdiction(city or county)
- Lessons learned - apply them
- Back up action plan available (practice worst, medium case scenario)

## To improve

- Enforcement
- Construction equipment upgrade & maintenance
- Project changes
- Contract provisions.